

**MISSOURI MODIFIED  
STANDARD PENETRATION TEST (FOR SHALE)**

THE TEST IS RUN IN THREE 6 INCH INCREMENTS. FOR SOIL, NO SEATING BLOWS ARE USED. FOR SHALE OR SOFT ROCK, THREE SEATING BLOWS ARE USED WHICH ARE NOT COUNTED.

1. Record the number of blows/6". Quit if 100 blows are achieved and record the penetration. (See 75' depth below.)
2. Record the number of blows for the first 6" increment. Quit if a total of 100 blows are achieved in the 1st and 2nd increments and record the penetration. (See 70' depth below.)
3. Continue into the 3rd increment when the blows for the 1st and 2nd increments do not total 100. If 100 blows are achieved as a total for both the 2nd and 3rd increments, quit and record the penetration for the 3rd increment. (See 65' depth below.)

NOTE: Do not total all 3 increments to achieve 100 blows.

**SAMPLE LOG  
STANDARD PENETRATION TEST**

Depth, ft.	Blows/6"	P.P., *tsf
5'	6-8-10	1.50
10'	3-12-23	--
65'	20-42-58 in 2"	--
70'	40-60 in 4"	9.0+
75'	100 in 5"	9.0+

\* Pocket Penetrometer

**CONVERSION TABLE FOR 100 BLOW TEST**

Inches/100 Blows	Est. Equiv., Qu., tsf
3.00	11.50
4.00	8.50
5.00	6.50
6.00	5.50
7.00	5.00
8.00	4.50
9-11	4.00
12.00	3.75